CLAIMS

What is claimed is:

1. A method for reducing delay in the presentation of descriptions of hazards, the method comprising:

receiving surveillance data describing an environment, a portion of the data describing a hazardous region of the environment;

selecting a first scan mode for updating an image in accordance with the portion of the data describing the hazardous region; and

selecting a second scan mode for updating the image in accordance with the data not part of the portion describing the hazardous region, wherein use of the first scan mode facilitates updating a portion of the image associated with the hazardous region with less delay than use of the first scan mode on all of the data describing the environment.

2. The method of claim 1 further comprising updating the image in accordance with the first scan mode and the second scan mode.

3. A memory device comprising instructions for a processor to perform the method of claim 1.

4. A method for reducing delay in the presentation of descriptions of hazards, the method comprising:

receiving data describing an image, a portion of the data describing a hazardous region of the image;

selecting a first scan mode for preparing a presentation in accordance with the portion of the data describing the hazardous region; and

selecting a second scan mode for preparing a presentation in accordance with the data not part of the portion describing the hazardous region, wherein use of the first scan mode facilitates preparing a presentation for a portion of the image associated with the hazardous region with less delay than use of the first scan mode on all of the data describing the environment.

5. The method of claim 4 further comprising preparing a presentation in accordance with the first scan mode and the second scan mode.

6. The method of claim 5 wherein preparing the presentation comprises transmitting messages to a display subsystem.

7. The method of claim 6 wherein the display subsystem presents a rho-theta image and the presentation is consistent with a message protocol of ARINC 708.

8. The method of claim 7 wherein the presentation uses a resolution different from the resolution prescribed by ARINC 708.

9. The method of claim 8 wherein:

preparing the presentation in accordance with the first scan mode provides a first resolution;

preparing the presentation in accordance with the second scan mode provides a second resolution; and

the first resolution is greater than the second resolution.

10. A memory device comprising instructions for a processor to perform the method of claim 4.

11. A method for providing a presentation to a hazard display, the method comprising:

performing surveillance to provide surveillance data;

updating an image in accordance with the surveillance data to provide an updated image;

preparing a presentation in accordance with the updated image; and

providing to the hazard display the presentation; wherein at least one of updating, preparing, and providing utilize a first scan mode for a hazardous region of the presentation and a second scan mode for a nonhazardous region of the presentation.

12. The method of claim 11 wherein surveillance includes at least one of traffic collision avoidance surveillance, terrain collision avoidance surveillance, and windshear avoidance surveillance.

13. The method of claim 11 wherein the first scan mode and the second scan mode differ in resolution.

14. The method of claim 11 wherein:

the first scan mode and second scan mode are each of the set of types comprising unidirectional in a first direction, unidirectional in a second direction, bidirectional in opposite directions converging, and bidirectional in opposite directions parting; and

the first scan mode is a different type than the second scan mode.

15. A memory device comprising instructions for a processor to perform the method of claim 11.

16. A method for the presentation of descriptions of hazards, the method comprising:

identifying a first scan mode for processing a first portion of the presentation comprising a hazardous region;

identifying a second scan mode for processing a second portion of the presentation not overlapping the first portion; and

directing processing for the presentation in accordance with the first scan mode and the second scan mode.

17. The method of claim 16 wherein the first scan mode and the second scan mode differ in resolution.

18. The method of claim 16 wherein:

the first scan mode and second scan mode are each of the set of types comprising unidirectional in a first direction, unidirectional in a second direction, bidirectional in opposite directions converging, and bidirectional in opposite directions parting; and

the first scan mode is a different type than the second scan mode.

19. The method of claim 16 wherein processing comprises at least one of updating an image according to the description of the hazardous region, preparing a presentation according to an updated image, and refreshing a display.

20. A memory device comprising instructions for a processor to perform the method of claim 16.

21. A system providing reduced delay in the presentation of descriptions of hazards, the system comprising:

a memory that provides data describing an environment, a portion of the data describing a hazardous region of the environment;

a processor that selects a first scan mode for updating an image in accordance with the portion of the data describing the hazardous region; and selects a second scan mode for updating the image in accordance with the data not part of the portion describing the hazardous region, wherein use of the first scan mode facilitates updating a portion of the image associated with the hazardous region with less delay than use of the first scan mode on all of the data describing the environment.

22. The system of claim 21 wherein the processor updates the image in accordance with the first scan mode and the second scan mode.

23. The system of claim 21 wherein the processor prepares a presentation in accordance with the first scan mode and the second scan mode.

24. The system of claim 23 wherein the processor transmits a first message to a provided display subsystem according to the first scan mode and transmits a second message to the display subsystem according to the second scan mode.

25. The system of claim 24 wherein the display subsystem presents a rho-theta image and the first message and the second message are consistent with a message protocol of ARINC 708.

26. The system of claim 23 wherein the presentation uses a resolution different from the resolution prescribed by ARINC 708.

27. The system of claim 23 wherein:

preparing the presentation in accordance with the first scan mode provides a first resolution;

preparing the presentation in accordance with the second scan mode provides a second resolution; and

the first resolution is greater than the second resolution.

28. A system that provides a presentation to a hazard display, the system comprising:

a memory comprising surveillance data;

a processor that updates an image in accordance with the surveillance data to provide an updated image; prepares a presentation in accordance with the updated image; and provides to the hazard display the presentation; wherein at least one of updating, preparing, and providing utilize a first scan mode for a hazardous region of the presentation and a second scan mode for a nonhazardous region of the presentation.

29. The system of claim 28 wherein surveillance includes at least one of traffic collision avoidance surveillance, terrain collision avoidance surveillance, and windshear avoidance surveillance.

30. The system of claim 28 wherein the first scan mode and the second scan mode differ in resolution.

31. The system of claim 28 wherein:

the first scan mode and second scan mode are each of the set of types comprising unidirectional in a first direction, unidirectional in a second direction, bidirectional in opposite directions converging, and bidirectional in opposite directions parting; and

the first scan mode is a different type than the second scan mode.

32. A system for the presentation of descriptions of hazards, the system comprising:

a memory comprising indicia of a hazardous region and indicia of a nonhazardous region;

a processor that identifies a first scan mode for processing indicia of the hazardous region; identifies a second scan mode for processing indicia of the nonhazardous region; and directs processing for the presentation in accordance with the first scan mode and the second scan mode.

33. The system of claim 32 wherein the first scan mode and the second scan mode differ in resolution.

34. The system of claim 32 wherein:

the first scan mode and second scan mode are each of the set of types comprising unidirectional in a first direction, unidirectional in a second direction, bidirectional in opposite directions converging, and bidirectional in opposite directions parting; and

the first scan mode is a different type than the second scan mode.

35. The system of claim 32 wherein processing comprises at least one of updating an image according to the description of the hazardous region, preparing a presentation according to an updated image, and refreshing a display.